PROCEEDINGS OF THE INTERNATIONAL CONFERENCE FOR INSTITUTE OF ADMINISTRATION (ICIA 2025)

AHMADU BELLO UNIVERSITY ZARIA - NIGERIA

Website: *https://icia.org.ng* **ISBN:** *978-978-695-265-9* ***Volume I, 2025***

IMPACT OF TAX REFORM ON KADUNA STATE'S INTERNALLY GENERATED REVENUE (IGR): A STUDY OF THE KADUNA STATE INTERNAL REVENUE SERVICE (KADIRS)

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Abstract

This study critically examines the impact of tax reforms on the Internally Generated Revenue (IGR) of Kaduna State, Nigeria, with a particular focus on the role of the Kaduna State Internal Revenue Service (KADIRS) in implementing reform measures between 2015 and 2023. With declining federal allocations and growing subnational fiscal responsibilities, tax reform has emerged as a strategic imperative for enhancing state-level revenue mobilization. The study explores three core dimensions of tax reform-legal and regulatory restructuring, technological innovations, and taxpayer engagement strategies-and their collective and individual effects on IGR performance. A survey research design was employed, adopting a quantitative method for the study. The study population comprised KADIRS officials, registered taxpayers, and institutional stakeholders, from which a sample of 292 respondents was selected using stratified random sampling. Primary data were collected through structured questionnaires, while secondary data on IGR trends were sourced from KADIRS financial records, government publications, and relevant scholarly literature. Data were analyzed using descriptive statistics and trend analysis, providing both perceptual and empirical insights into revenue dynamics over the study period. The findings indicate that tax reforms have had a positive and statistically significant impact on IGR in Kaduna State. Legal and regulatory reforms improved clarity, enforcement, and compliance through streamlined tax codes and harmonized revenue laws. Technological reforms-most notably the adoption of digital platforms such as PayKaduna and e-tax systems-enhanced transparency, reduced revenue leakages, and improved accessibility for taxpayers. Taxpayer engagement initiatives, including public education campaigns, feedback mechanisms, and stakeholder consultations, were found to increase tax

morale and voluntary compliance. However, the study also identifies persistent challenges such as limited outreach in rural areas, capacity gaps among revenue personnel, and occasional system downtimes that impede the full realization of reform benefits. The study concludes that comprehensive and well-integrated tax reforms are essential for sustainable subnational revenue generation. It recommends that state governments institutionalize periodic policy reviews, invest in digital infrastructure, enhance taxpayer education, and build institutional capacity to consolidate gains from reform initiatives. The findings contribute to the broader discourse on fiscal federalism, tax governance, and public finance reform in emerging economies.

Keywords: *IGR, Tax Reforms, Legal and Regulatory Reforms, Technological Reforms, Taxpayer Engagement Strategies*

1.1 Background to the Study

In the face of increasing instability in oil revenues and expanding developmental responsibilities, subnational governments in Nigeria have intensified efforts to enhance their Internally Generated Revenue (IGR) to ensure fiscal sustainability. Tax reform has emerged as a strategic tool in this regard, focusing on legal restructuring, technological innovation, and taxpayer engagement as means of expanding the tax base, improving compliance, and minimizing revenue leakages. Globally, effective tax reforms have been associated with improved revenue performance and better governance outcomes, particularly in countries such as Rwanda, Estonia, and South Africa, where automation, legal harmonization, and citizen participation have significantly strengthened public finance systems (World Bank, 2020; OECD, 2019).

In Nigeria, ongoing fiscal decentralization and unstable federal allocations have compelled state governments to adopt reforms aimed at boosting IGR. Kaduna State; one of the leading reform-driven subnational governments-initiated far-reaching tax reforms through the Kaduna State Internal Revenue Service (KADIRS) beginning in 2015. These reforms include the enactment of new tax laws, harmonization of revenue codes, digitization of tax collection processes through platforms such as PayKaduna, and extensive taxpayer education and sensitization campaigns.

Despite these ambitious reforms, Kaduna State's IGR, though showing considerable improvement, still falls short of the state's economic potential, population size, and the scale of informal economic activities. According to KADIRS and the National Bureau of Statistics,

IGR increased from ₦26.5 billion in 2017 to ₦77.1 billion in 2022, before declining to ₦62.49 billion in 2023. This fluctuation raises concerns regarding the sustainability, depth, and effectiveness of the reforms implemented. While digital platforms and legal adjustments have been widely praised, concerns persist about uneven reform implementation, exclusion of rural taxpayers, resistance from informal sector operators, and persistent gaps in enforcement and institutional capacity. Empirical evidence globally has demonstrated that successful tax reforms rely on strong institutional capacity, sustained political commitment, and strategic taxpayer engagement (Fjeldstad et al., 2020; Bird & Zolt, 2008).

However, much of the existing Nigerian literature focuses predominantly on federal tax structures or offers broad observations without isolating the specific effects of individual reform components-such as legal frameworks, digital innovations, or engagement strategies-on IGR performance at the state level. Although Kaduna State has implemented comprehensive tax reforms, there remains a paucity of empirical studies assessing the disaggregated impact of these reforms on IGR outcomes. Most available studies either examine tax administration challenges generally or evaluate reforms in aggregate, without systematically analyzing the extent to which specific reforms contribute to revenue performance.

Additionally, the inconsistency in IGR growth-particularly the sharp decline in 2023 after several years of steady increases-suggests persistent and unresolved challenges within the reform framework. These may include limited taxpayer inclusion in rural and informal sectors, weak enforcement mechanisms, low digital literacy among taxpayers, and institutional capacity gaps. Without empirical evidence showing which reforms drive revenue performance and which constraints undermine it, policy interventions risk being misaligned or insufficiently targeted.

This study seeks to address these gaps by examining the individual and combined effects of legal and regulatory reforms, technological innovations, and taxpayer engagement strategies on the IGR of Kaduna State between 2015 and 2023. The study aims to provide evidence-based insights that can strengthen subnational tax reform programs and support sustainable revenue mobilization in Nigeria and similar developing contexts.

1.2 Research Hypotheses

The study is guided by the following null hypotheses:

$H0_1$: Tax laws and regulatory reforms have no significant impact on the Internally Generated Revenue of Kaduna State.

$H0_2$: Technological reforms have no significant impact on revenue collection efficiency in Kaduna State.

$H0_3$: Taxpayer engagement strategies do not significantly influence tax compliance and IGR growth in Kaduna State.

2.0 Conceptual Literature

2.1 Concept of Internally Generated Revenue (IGR)

Internally Generated Revenue (IGR) refers to all revenues collected by subnational governments from within their territorial jurisdiction, independent of allocations from the central government. Traditionally, IGR has been defined simply as income derived from taxes, fees, fines, and charges levied by state and local governments. However, contemporary scholarship broadens this view to incorporate administrative capacity, digital governance, taxpayer behaviour, and the legal frameworks that shape revenue performance.

Odusola (2006) describes IGR as revenue accruing to subnational governments from taxes, levies, fees, and fines not shared with the federal government. Similarly, Abiola and Asiweh (2012) define IGR as income derived internally by state or local governments from sources such as taxes, rates, fees, and licenses. The Federal Ministry of Finance (2015) extends this definition to include income from all legally approved sources used to finance developmental and recurrent activities. Olaoye (2019) emphasizes that IGR constitutes revenue generated from a state's internal economic activities and serves as a foundation for self-reliance and development. More recent perspectives, such as Adebayo and Salisu (2022), highlight the role of technology, reforms, and improved compliance as critical components of modern IGR systems. At the global level, the World Bank (2020) defines IGR as non-shared tax and non-tax revenue mobilized at subnational levels to support decentralized service delivery. In Kaduna State, IGR is defined as all revenue collected within the state through taxes, levies, fees, charges, and other approved sources used to finance government functions without reliance on federal transfers (KADIRS Annual Report, 2022). Thus, in the context of contemporary tax governance, IGR should be understood not merely as revenue but as a multidimensional instrument shaped by legal frameworks, institutional capacity, technology adoption, taxpayer engagement, and developmental priorities.

2.2 Concept of Tax Reforms

Tax reforms refer to deliberate legislative, administrative, and technological changes undertaken to improve the efficiency, equity, and effectiveness of a tax system (OECD, 2020). In Nigeria, and especially in Kaduna State, tax reforms have focused on three interrelated dimensions: legal restructuring, technological modernization, and taxpayer engagement.

Legal reforms include the enactment of new tax laws, harmonization of revenue collection procedures, and the strengthening of institutional autonomy for tax authorities. Technological reforms involve deploying digital systems such as PayKaduna, e-tax platforms, automated receipts, and POS-based collections to reduce leakages and enhance transparency. Taxpayer engagement reforms include public awareness campaigns, stakeholder consultations, grievance redress mechanisms, and responsive communication systems (Ibrahim & Alkali, 2020).

Despite significant progress, challenges persist such as weak enforcement, informal sector resistance, low tax morale, and inadequate institutional capacity (Olaoye, 2022). These limitations often create a gap between the design of reforms and actual taxpayer behaviour, thereby hindering optimal IGR performance.

2.2.1 Concept of Tax Laws and Regulatory Reforms

Tax laws and regulatory reforms involve reviewing, amending, and implementing legal frameworks to strengthen tax administration and enhance compliance. Such reforms aim to simplify tax processes, close legal loopholes, harmonize revenue codes, eliminate multiple taxation, and establish clear enforcement mechanisms (OECD, 2010). In Nigeria, reforms have included the unification of tax laws, strengthening the autonomy of Internal Revenue Services, and institutionalizing penalties for tax evasion. In Kaduna State, the Kaduna State Tax Codification and Consolidation Law and the Revenue Harmonization Law have significantly transformed the revenue system by ensuring clarity, reducing unauthorized levies, and improving compliance (KADIRS Annual Report, 2022). These reforms underpin a more transparent and predictable tax environment that supports IGR growth.

2.2.2 Concept of Technological Reforms

Technological reforms in tax administration entail adopting digital tools and systems to automate, simplify, and streamline revenue processes. These include e-filing systems, electronic payment platforms, biometric taxpayer databases, digital receipts, automated audit engines, and taxpayer identification systems. According to the OECD (2019), digitalization

enhances transparency, reduces human interference, improves record-keeping, and encourages voluntary compliance. In Kaduna State, digital systems such as PayKaduna, e-tax platforms, and POS-based payment channels have modernized revenue collection, reduced cash handling, and enhanced transaction tracking. These reforms implemented by KADIRS have significantly reshaped the IGR landscape by reducing leakages and improving administrative efficiency.

2.2.3 Concept of Taxpayer Engagement Strategies

Taxpayer engagement refers to deliberate efforts by tax authorities to involve taxpayers in understanding, shaping, and complying with tax policies. It includes sensitization campaigns, stakeholder consultations, transparency initiatives, grievance redress mechanisms, service ratings, and educational outreach. Bird and Zolt (2008) assert that taxpayer engagement increases tax morale and encourages voluntary compliance. In Kaduna State, KADIRS has adopted diverse engagement strategies such as town hall meetings, media campaigns, simplified registration processes, and mobile tax units to widen access and improve trust (KADIRS Annual Report, 2023). Effective taxpayer engagement enhances transparency, strengthens public trust, and reduces resistance to taxation-key drivers of sustainable IGR performance.

2.3 Empirical Literature Review

2.3.1 Tax Reforms and IGR in Kaduna State

Studies consistently show that tax reforms significantly influence IGR performance.

12. Odukwu, Oshiogwemoh & Eke (2022) assert that reforming tax codes and administration enhances revenue outcomes.
13. Oseni (2016) highlights the role of ICT-driven reforms in reducing leakages and improving assessment accuracy.
14. Adekoya (2021) found that taxpayer education fosters voluntary compliance and expands the tax base.
15. Fjeldstad (2020) emphasizes the importance of political will and enforcement capacity in sustaining reform gains.

Empirically, reforms in Kaduna State have modernized tax administration, reduced leakages, improved transparency, and broadened the revenue base. However, the depth of impact varies

based on implementation quality, institutional capacity, and public cooperation. A notable research gap is the lack of studies that disaggregate and measure the individual effects of legal reforms, technological tools, and taxpayer engagement on IGR; a gap this study seeks to address.

2.3.2 Tax Laws and Regulatory Reforms and Revenue Generation

Evidence from several studies demonstrates that legal reforms significantly influence revenue performance.

g) Bello and Johnson (2024) found that tax law harmonization in Kaduna State improved compliance and increased IGR.
h) Ocheni and Nwankwo (2021) observed that states with clear, enforceable laws achieve higher revenue outcomes due to reduced ambiguity and litigation.
i) Eke and Omogbai (2022) concluded that national tax reforms enhance tax collection across PPT, CIT, and VAT.
j) Abiola and Asiweh (2012) argue that regulatory weaknesses undermine effective IGR mobilization, but states with modernized legal frameworks experience substantial IGR growth.
k) Olaoye (2022) noted that tax tribunals and dispute resolution mechanisms improve taxpayer trust, indirectly boosting compliance.

Collectively, the literature affirms that legal and regulatory reforms are key enablers of revenue growth, although continuous updates and strong enforcement remain essential.

2.3.3 Technological Reforms and Internally Generated Revenue

Technological innovations are widely recognized as critical drivers of improved IGR.

8. Abubakar, Yusuf and Yakubu (2021) found that the absence of ICT contributes to tax avoidance and evasion.
9. Ogundele et al. (2020) reported that states with digital tax systems recorded higher IGR due to enhanced transparency and reduced human interference.
10. Mas'ud, Mohammed & Gimbia (2023) highlighted that digital IDs, e-tax systems, and data analytics significantly improve revenue performance.
11. Adegbite et al. (2020) confirmed the positive impact of ICT on tax revenue in Oyo State.

12. Lamidi et al. (2023) emphasized that perceived usefulness and facilitating conditions determine e-filing adoption.

Overall, studies agree that technology improves accountability, simplifies compliance, and broadens the revenue base. However, scholars note that technological reforms must be complemented by digital literacy programs, cybersecurity, and system upgrades for sustained effectiveness.

2.3.4 Taxpayer Engagement Strategies and IGR

Empirical evidence shows that taxpayer engagement significantly enhances compliance and revenue. Bello and Ibrahim (2020) identified sensitization campaigns as a key driver of improved compliance in Kaduna State.

6. Danjuma and Aliyu (2021) reported that feedback systems increased taxpayer satisfaction and trust.
7. Usman and Garba (2020) found that sectorial dialogues enhanced understanding among SMEs and traders.
8. Okonkwo and Yakubu (2021) demonstrated that participatory budgeting and public forums increased the legitimacy of the tax system.
9. Aisha and Mohammed (2022) highlighted the importance of rural outreach and local language campaigns in improving registration and reducing default rates.

However, challenges remain, including limited rural penetration, language barriers, and low digital literacy. The literature also reveals a gap in measuring the differential effectiveness of specific engagement strategies; an area this study addresses.

2.4 Theoretical Framework

This study is anchored on two interrelated theoretical foundations-Public Choice Theory and Tax Compliance Theory-to provide an analytical lens for examining the relationship between tax reforms and Internally Generated Revenue (IGR) in Kaduna State. These theories offer a dual perspective: one rooted in behavioral economics and institutional trust, and the other in deterrence and system efficiency.

2.4.1 Public Choice Theory

Public Choice Theory (Buchanan & Tullock, 1962; Downs, 1957) applies economic reasoning to political and administrative behaviour. It argues that taxpayers comply when they perceive

government institutions as transparent, efficient, and legitimate. Conversely, corruption, mismanagement, or low public trust discourages compliance. In Kaduna State, initiatives such as digital tax platforms (PayKaduna), stakeholder consultations, and public sensitization align with the theory by improving trust and perceived fairness.

2.4.2 Tax Compliance Theory

Tax Compliance Theory (Allingham & Sandmo, 1972) posits that compliance is influenced by the probability of detection, severity of penalties, and fairness of the tax system. Modern interpretations incorporate psychological and institutional factors such as trust, tax morale, and administrative efficiency (Kirchler, 2007). Kaduna State's use of ICT tools such as e-tax systems, POS monitoring, and biometric identification strengthens enforcement, increases the likelihood of detection, and reduces compliance barriers.

2.4.3 Integrative Perspective

Integrating both theories provides a comprehensive framework for analyzing how administrative reforms and taxpayer perceptions jointly shape IGR performance. Public Choice Theory explains voluntary compliance rooted in trust and perceived legitimacy, while Tax Compliance Theory captures enforcement, deterrence, and system efficiency. Together, they offer a balanced analytical lens suitable for evaluating tax reforms in Kaduna State.

2.4.4 Justification for the Theoretical Framework

The dual-theory approach is appropriate because tax reforms in Kaduna State involve both behavioural and institutional dimensions. The framework enables the study to: link administrative, innovations to taxpayer behaviour, isolate the effects of each reform dimension, assess sustainability of compliance, and provide evidence-based policy insights.

3.1 Research Methodology

This study adopted a survey research design to examine the effects of tax reforms; specifically legal and regulatory reforms, technological reforms, and taxpayer engagement strategies on Internally Generated Revenue (IGR) in Kaduna State. The survey design was considered appropriate because it enabled the collection, analysis, and interpretation of quantitative data from a diverse cross-section of respondents within the state's tax ecosystem.

The target population consisted of 1,200 individuals, including staff of the Kaduna State Internal Revenue Service (KADIRS), registered taxpayers (both individuals and business

owners), and key stakeholders such as government officials, community leaders, and tax consultants. A stratified random sampling technique was used to ensure balanced representation across the three major respondent categories: 1. KADIRS officials, 2. Taxpayers and 3. Stakeholders

Within each stratum, respondents were selected through simple random sampling to minimize selection bias. Using the Krejcie and Morgan (1970) sample size determination formula, a sample of 292 respondents was derived as statistically adequate and representative of the study population.

The study was conducted across four revenue areas of KADIRS to ensure geographic diversity as well as inclusion of perspectives from both urban and rural settings. The selected areas were: KADIRS Headquarters, Kaduna North Area Revenue Office, Sabon Gari Area Revenue Office, and Soba Area Revenue Office

Sources of Data

Both primary and secondary data sources were utilized:

Primary Data: Structured questionnaires were administered to respondents across the identified strata. The instrument employed a 5-point Likert scale (ranging from Strongly Agree to Strongly Disagree) and was organized into sections corresponding to the three dimensions of tax reform and their perceived impact on IGR.

Secondary Data: IGR performance reports from KADIRS (2015-2023), National Bureau of Statistics publications, government documents, and relevant scholarly literature were reviewed to provide contextual background and enhance the robustness of the analysis.

Methods of Data Analysis

Data were analyzed using quantitative techniques. Descriptive statistics; including frequency counts, percentages, means, and standard deviations, were used to summarize responses and profile the perceptions of participants. Tables and charts were employed for clarity in data presentation.

4.0 Results

4.1 Quantitative Analysis

Section A: Demographic Composition of Respondents

Table 1: Demographic profile of Respondents

Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	173	59.2
	Female	119	40.8
Age	18-30 years	54	18.5
	31-40years	109	37.3
	41-50 years	84	28.8
	51 years & above	45	15.4
Educational Level	SSCE/OND	52	17.8
	HND/Degree	165	56.5
	Masters & Above	75	25.7
Occupation	KADIRS Tax official	118	40.4
	Registered Taxpayers	109	37.3
	Other stakeholders	65	22.3
Years of Experience	Less than 5 years	67	22.9
	5-10 years	132	45.2
	Above 10 years	93	31.8

Source: Researcher's Analysis, 2025

Interpretation and Analysis

Demographic Profile of Respondents

The study surveyed 292 respondents comprising KADIRS officials, registered taxpayers, and other stakeholders. Slightly more males (59.2%) than females (40.8%) participated. The majority of respondents (66.1%) fell within the 31-50 age range, indicating mid-career professionals actively engaged in the tax ecosystem. Most respondents (82.2%) held at least a bachelor's degree, suggesting an educated sample capable of understanding tax reforms. Regarding occupation, 40.4% were KADIRS officials, 37.3% were registered taxpayers, and 22.3% were other stakeholders. Experience was reasonably distributed, with 77% having over five years in relevant roles (Table 1).

Section B: Effect of Tax Reforms on Internally Generated Revenue (N = 292)

Table 2: Descriptive statistics on Effect of Tax Reforms on Internally Generated Revenue (N = 292)

S/N	Item Statement	SA (F/ %)	A (F/ %)	U (F/ %)	D (F/ %)	SD (F/ %)	Mean	S.D
1	Legal Reforms introduced by KADIRS have made tax laws clearer and easier to understand	102(34.9)	118(404)	34(11.6)	26(8.9	12(4.1)	3.99	1.02
2	The enforcement of tax laws has improved since recent legal reforms were implemented	95(32.5)	121(41.4)	38(13.0)	23(7.9)	15(5.1)	3.94	1.04

3	Penalties for non-compliance are now more effective and better enforced than before	88(30.1)	125(42.8)	36(12.3)	28(9.6)	15(5.1)	3.88	1.06
4	The introduction of electronic tax payment platforms e.g PayKaduna has simplified payment.	110(37.7)	123(42.1)	25(8.6)	20(6.8)	14(4.8)	4.01	0.99
5	Training/Sensitization on tax audit enhances official's capacity to improve IGR	108(37.0)	117(40.1)	30(10.3)	26(8.9)	11(3.8)	3.97	1.01
6	Tax payers are well registered under the current tax system	115(39.4)	119(40.8)	22(7.5)	21(7.2)	15(5.1)	4.00	1.03
7	I can easily access and retrieve my tax information online	85(29.1)	113(38.7)	40(13.7)	38(13.0)	16(5.5)	3.66	1.14
8	Technology has reduced the need for physical visits to tax offices	77(26.4)	112(38.4)	42(14.4)	41(14.0)	20(6.8)	3.58	1.16
9	KADIRS regularly educates taxpayers about rights and obligations	112(38.4)	118(40.4)	25(8.6)	24(8.2)	13(4.5)	4.01	1.01
10	Feedback from taxpayers is considered in improving policies and services	101(34.6)	132(42.1)	32(11.0)	26(8.9)	10(3.4)	3.96	1.00
11	Reforms by KADIRS have led to increased revenue collection	93(31.8)	119(40.8)	36(12.3)	29(9.9)	15(5.1)	3.86	1.05
12	Efficiency in tax collection has improved to ongoing reforms.	109(37.3)	122(41.8)	28(9.6)	21(7.2)	12(4.1)	4.01	1.01
13	Tax compliance has increased since the introduction of new reforms	94(32.2)	120(41.1)	35(12.0)	28(9.6)	15(5.1)	3.86	1.06

Sources: Researcher's Compilation, 2025

Interpretations and Analysis

Legal Clarity and Accessibility

Respondents agreed (Mean = 3.99) that tax laws are now clearer and easier to understand. This suggests that recent legal reforms under KADIRS have enhanced statutory transparency, which is vital for voluntary compliance. According to OECD (2017) and Njogu (2018), the clarity of tax obligations reduces evasion and boosts trust in tax systems.

Improved Enforcement

A mean score of 3.94 reflects agreement that enforcement has improved. Strengthened legal backing has likely empowered tax officers to pursue non-compliance more effectively. This aligns with Becker's (1968) economic deterrence theory and World Bank (2021) findings that enforcement ensures tax discipline.

Effective Penalties

With a mean of 3.88, most respondents affirm that penalties are better enforced. Deterrent consequences serve as a tool to discourage tax evasion, a position supported by Sawers & Usher (2020), who argue that effective sanctions increase compliance.

Ease of Payment via PayKaduna

Respondents strongly agreed (Mean = 4.01) that electronic platforms have simplified tax payments. This reflects successful ICT integration, reducing both complexity and leakages. Abubakar & Yakubu (2019) and Ogundele et al. (2020) confirm that digitalization improves transparency and accelerates revenue growth.

Staff Capacity through Training

A score of 3.97 shows high confidence in tax officers' improved capacity due to training. This indicates that institutional reforms are supported by human capital development, echoing World Bank (2021) and Okafor & Eze (2018) who highlight the centrality of skilled personnel in reform sustainability.

Taxpayer Registration

Respondents agreed (Mean = 4.00) that taxpayers are well captured by the system, although some remained neutral. This implies growing database coverage but also reveals room for expansion, especially into the informal sector. This resonates with Njogu (2018) who found that comprehensive taxpayer registration is essential for increasing IGR.

Online Access to Tax Information

Moderate agreement (Mean = 3.66) indicates growing, but uneven, access to digital tax records. While some users benefit, others especially in rural areas—may face ICT barriers. Nwachukwu & Ibekwe (2020) stress the need for inclusive digital tax tools.

Reduced Need for Physical Office Visits

Lower agreement (Mean = 3.58) suggests partial success in replacing face-to-face interactions with online alternatives. This highlights digital divide concerns, reinforcing Adebayo & Salisu (2022), who argue for mobile-friendly and rural-accessible platforms.

Taxpayer Education and Rights Awareness

Strong agreement (Mean = 4.01) confirms the effectiveness of KADIRS' public education strategies. Awareness enhances tax morale and voluntary compliance, consistent with Bird & Zolt (2008) and Aisha & Mohammed (2022).

Feedback Utilization in Policy Improvement

Respondents agreed (Mean = 3.96) that taxpayer feedback informs policy changes. This shows that governance has become more participatory and citizen-centric. Danjuma & Aliyu (2021) found similar results in tax policy responsiveness to stakeholder inputs.

Revenue Increase Attributed to Reforms

A mean of 3.86 indicates perceived improvement in IGR linked to reforms. Respondents credit modernization efforts for tangible fiscal results. Bello & Ibrahim (2020) and KADIRS (2023) support this, citing automation and legal harmonization as key drivers.

Efficiency in Tax Collection

With a mean score of 4.01, respondents believe reforms have streamlined tax operations. This supports global assertions that digital systems enhance tax administration effectiveness, as affirmed by OECD (2019).

Improved Tax Compliance

Respondents agreed (Mean = 3.86) that compliance has risen. This suggests the combined effect of legal, technological, and educational reforms is shifting taxpayer behavior. The result aligns with Allingham & Sandmo's (1972) compliance theory and Torgler's (2007) findings on trust-based tax compliance.

Implications

1. The results indicate that tax reforms in Kaduna State are working holistically improving law enforcement, administrative efficiency, and taxpayer engagement.

2. Increased compliance and usage of digital systems suggest that reforms have successfully influenced taxpayer behavior, validating the theoretical framework underpinning this study.

3. Lower scores on digital access imply that reforms should also target underserved groups, especially in rural and semi-literate populations.

4. Staff training and feedback integration highlight the need for continuous institutional strengthening, not just regulatory changes.

Effect of Tax Reforms on Internally Generated Revenue

Respondents generally agreed that tax reforms positively influenced Kaduna State's IGR. Mean scores across 13 items ranged from 3.58 to 4.01 on a 5-point scale. Key items with high agreement included clarity of tax laws post-reform (mean=3.99), improved enforcement (3.94), effective penalties (3.88), and simplified electronic tax payment platforms such as PayKaduna (4.01). Training and sensitization efforts were also positively viewed (3.97). Despite some neutrality regarding ease of online tax information access (3.66) and reduction in physical office visits (3.58), overall perception supports the effectiveness of the reforms (Table 2).

4.2 Quantitative Trend Analysis of IGR

Year	Total IGR (N Billion)	% Change (YoY)
2017	26.5	-
2018	29.0	+9.43%
2019	44.9	+54.83%
2020	48.9	+8.91%
2021	52.4	+7.15%
2022	77.1	+47.14%
2023	62.49	-18.94%

Source: NBS (2023)

The quantitative analysis reveals:

Steady Growth: Significant increases between 2017 and 2022, particularly in 2019 (+54.83%) and 2022 (+47.14%), reflect improved tax policies, such as automation and enforcement strategies. 2023 Decline: The 18.94% drop may indicate economic challenges, reduced compliance, or inefficiencies, warranting further investigation. Efficient tax administration supports fiscal sustainability by reducing reliance on federal allocations. Kaduna State's

proactive reforms, including the adoption of ICT platforms (e.g., Pay-Kaduna), expand the tax net. Musgrave & Musgrave (1989) emphasizes equitable taxation. Reforms targeting high-income earners (e.g., PAYE) and direct assessments may have contributed significantly to the IGR growth. Transparency in revenue collection fosters public trust and compliance, as supported by Fjeldstad and Moore (2008), who highlight the role of accountability in tax systems.

Adebisi and Gbegi (2013) on Nigerian states confirms that automation (e.g., e-tax platforms) significantly boosts revenue generation. Similarly, Kaduna's integration of digital platforms corroborates this finding. Responses from KADIRS officials and Taxpayers highlight key themes, such as: Tax evasion, administrative bottlenecks, and public distrust and Automation, stakeholder engagement, and capacity building for tax officers.

Compliance Theoretical Implications

Public Choice and Compliance theories emphasize the role of certainty, severity, and swiftness of punishment in encouraging compliance. When applied to tax reforms, it suggests that taxpayers are more likely to comply if they perceive a high likelihood of detection and enforcement of penalties for evasion. This framework is critical in analyzing the IGR trends of Kaduna State from 2017 to 2023, particularly in understanding the effect of legal and regulatory reforms, Technological reforms, and taxpayers' engagement strategies on revenue growth.

The significant increase in IGR in 2019 (+54.83%) and 2022 (+47.13%) aligns with the introduction of ICT systems (e.g., automated tax collection and Pay-Kaduna). These systems increased the likelihood of detection of evasion, creating a strong deterrent effect. Example: The PayKaduna platform allowed real-time tracking of transactions, improving compliance and reducing opportunities for evasion. Allingham and Sandmo (1972) support that the likelihood of detection strongly influences compliance rates.

The relatively steady growth in 2020 (+8.91%) and 2021 (+7.18%) reflects the role of penalties for non-compliance, particularly during the COVID-19 period when tax authorities emphasized fines for defaulters. Example: Stricter penalties were applied for late payments and non-remittance, particularly targeting businesses and high-income earners. Swift enforcement mechanisms, such as automated fines and penalties, likely contributed to the growth observed in 2022. The immediacy of penalties through digital platforms reduced the lag between evasion detection and punishment, reinforcing deterrence.

Erosion of Compliance in 2023

The drop in IGR (-18.95%) in 2023 may indicate weakened enforcement mechanisms due to economic challenges or administrative lapses. Example: Economic hardships could have led to increased evasion, highlighting the need for sustained deterrence strategies. ICT and Deterrence: Fjeldstad and Heggstad (2012) emphasize that digital systems enhance the certainty and swiftness of enforcement, as demonstrated by Kaduna's IGR growth post-automation. Torgler (2007) suggests that deterrence must be balanced with trust and voluntary compliance mechanisms. Kaduna's reliance on strict enforcement might need complementing strategies like taxpayer education and incentives.

Key Findings

The substantial IGR growth from ₦26.50 billion in 2017 to ₦77.10 billion in 2022 illustrates the effectiveness of deterrence-based strategies like legal and regulatory reforms, ICT-driven detection, and taxpayers' education and engagement.

The decline in 2023 indicates that economic conditions and enforcement gaps can erode the deterrence effect. To sustain IGR growth, deterrence mechanisms should be integrated with incentives, trust-building, and transparency in tax administration.

Public Choice and Compliance theories provide a robust framework for analyzing the IGR performance of Kaduna State from 2017–2023. While strong compliance measures significantly boosted revenue, the decline in 2023 highlights the need for balanced strategies that integrate enforcement with trust-building and economic resilience. This aligns with global best practices in public financial management, ensuring sustainable revenue growth for the state.

Empirical data from KADIRS show IGR rising from ₦26.5 billion in 2017 to a peak of ₦77.1 billion in 2022, attributed to tax reforms. However, a decline to ₦62.49 billion in 2023 indicates ongoing challenges despite progress

4.3 Test of Hypotheses

Table 5: Multiple Regression Analysis Table

Predictor	**Unstandardized coefficient (B)**	**Standardized Coefficient (Beta)**	**Beta**	**t-value**	**Sig. (p-value)**
(Constant)	1.045	0.134	-	7.80	0.000

Tax Laws & Regulatory Reforms	0.352	0.054	0.334	6.52	0.000**
Technological Reforms	0.398	0.060	0.375	6.63	0.000**
Taxpayer Engagement Strategies	0.276	0.049	0.269	5.63	0.000**
R^2	0.610	-		-	-
Adjusted R^2	0.605	-		-	-
F- Statistic	134.22	-		-	$p < 0.005$
Dependent Variable	IGR				

Source: Researcher's Analysis, 2025

Interpretation and Analysis

1. Model Strength ($R^2 = 0.610$)

The R-squared value of 0.610 means that 61% of the variance in Internally Generated Revenue (IGR) is explained by the combined influence of Legal & Regulatory Reforms, Technological Reforms, and Taxpayer Engagement. This shows a strong predictive power, indicating that these reforms significantly impact IGR in Kaduna State.

2. Overall Significance ($F = 134.22$, $p < 0.000$)

The ANOVA result confirms that the overall model is statistically significant, meaning the independent variables reliably predict the dependent variable.

3. Legal & Regulatory Reforms ($\beta = 0.334$, $p < 0.000$)

Legal reforms contribute significantly and positively to IGR. A one-unit increase in legal/regulatory reform effectiveness results in a 0.352 increase in IGR. This aligns with theory and global evidence that legal clarity, enforcement, and harmonization encourage compliance and boost revenue.

4. Technological Reforms ($\beta = 0.375$, $p < 0.000$)

This variable had the strongest beta coefficient, implying that digital tools such as PayKaduna and online tax platforms are the most influential drivers of IGR growth. The data confirms that automation reduces leakages, increases efficiency, and improves user experience.

5. Taxpayer Engagement ($\beta = 0.269$, $p < 0.000$)

Though slightly lower than the others, taxpayer engagement also had a significant positive effect, reinforcing the importance of education, feedback, and transparency. These strategies build public trust, which supports voluntary compliance.

Implications for the Study

1. Integrated Reform Strategy

The results validate your study's conceptual model. All three variables significantly affect IGR, implying that tax reform in Kaduna must remain multi-dimensional, not just legalistic or technical.

2. Technology as the Key Lever

Since technological reforms had the highest impact, the Kaduna State Government and KADIRS should expand ICT platforms, especially for underserved or informal sectors. Investments in automation, taxpayer portals, and data analytics are justified.

3. Strengthening Legal Frameworks

Legal reforms must be continuously updated and strictly enforced. Legislators and policy leaders should regularly review tax codes, penalties, and enforcement mechanisms to maintain effectiveness.

4. Boosting Taxpayer Engagement

The significant effect of engagement strategies emphasizes the need for two-way communication between tax authorities and citizens. More outreach, tax education, and dispute resolution mechanisms can close the gap between policy and public participation.

4.4 Discussion of Findings

Demographic Insights

The demographic composition demonstrates a diverse and experienced sample, with a strong presence of educated professionals from both implementing agencies and taxpayer groups. This lends credibility and comprehensive insight to the findings, confirming perspectives from both sides of the tax system.

Impact of Legal and Regulatory Reforms

The data affirm that legal reforms have substantially clarified tax codes, improved enforcement, and strengthened penalty frameworks. This aligns with related literature emphasizing legal certainty as fundamental to fiscal compliance. Kaduna State’s harmonization laws and codification processes are credited for these outcomes.

Role of Technological Reforms

The adoption of digital platforms like PayKaduna has greatly enhanced payment efficiency and transparency. While some respondents noted limited ease of online information retrieval, the overall positive evaluation supports technology as a vital tool in modernizing tax administration and improving taxpayer experience.

Effectiveness of Taxpayer Engagement

Regular taxpayer education, sensitization campaigns, and feedback mechanisms contributed to increased voluntary compliance and morale. This confirms theoretical perspectives on trust-building and participation as key compliance drivers. Continuous improvement to reach rural and semi-formal sectors remains important.

Policy Implications

The regression results highlight the need for integrated reform approaches combining legal frameworks, technology, and engagement strategies for optimal revenue generation. The 2023 decline in IGR underscores that reforms require sustained enforcement, inclusion of informal sectors, and capacity building among revenue officials to maintain gains.

4.5 Limitations of the Study

This study, while providing valuable insights into tax reforms' impact on Kaduna State's IGR, has several limitations that should be considered when interpreting the findings:

Reliance on Self-Reported Survey Data: The primary data collection through structured Likert-scale questionnaires may be subject to response bias, social desirability effects, and recall inaccuracies, particularly among respondents assessing reform impacts over an 8-year period.

Quantitative-Only Approach: The exclusive use of descriptive statistics and regression analysis limits exploration of underlying behavioral motivations, taxpayer perceptions, and contextual factors that qualitative methods (e.g., interviews, focus groups) could reveal.

Geographic and Temporal Scope: The study focused on four KADIRS revenue areas within Kaduna State from 2015-2023, potentially limiting generalizability to other Nigerian states, rural-dominated regions, or periods beyond the analyzed timeframe.

Sample Composition: While diverse, the sample's high education levels (82.2% with degrees) and urban bias may not fully represent informal sector taxpayers, rural communities, or less digitally literate populations critical to comprehensive IGR mobilization.

Cross-Sectional Design: The survey captured perceptions at a single point, potentially missing dynamic changes in taxpayer behavior or reform effectiveness over time.

Directions for Future Research

To build upon these findings, future studies should consider:

Mixed-Methods Approaches: Combine quantitative surveys with qualitative interviews to explore taxpayer resistance, digital adoption barriers, and enforcement challenges in depth.

Longitudinal Analysis: Track IGR performance and reform impacts over extended periods to assess sustainability beyond the 2023 decline.

Comparative State Studies: Examine tax reform effectiveness across multiple Nigerian states to identify best practices and contextual factors.

Sector-Specific Research: Investigate informal sector inclusion, rural tax mobilization, and digital literacy's role in compliance.

Experimental Designs: Test specific interventions (e.g., mobile tax clinics, SMS reminders) using randomized controlled trials to establish causality.

5.1 Conclusion

This study has demonstrated that tax reforms in Kaduna State—specifically legal and regulatory restructuring, technological innovations, and taxpayer engagement strategies—have collectively and positively influenced the state's Internally Generated Revenue (IGR) between 2015 and 2023. The reforms brought about increased clarity and enforcement of tax laws, enhanced efficiency and transparency through digital platforms like PayKaduna, and improved voluntary compliance via sustained taxpayer education and feedback mechanisms. However, the IGR's decline in 2023 emphasizes persistent challenges such as limited rural outreach, capacity constraints among revenue officials, and enforcement gaps. These findings underscore the importance of a comprehensive, integrated, and continuously adaptive approach to tax reform for sustainable revenue mobilization at subnational levels.

5.2 Recommendations

The study recommends the following:

1. Review and Strengthen Legal Frameworks

Regularly update tax laws and enforcement mechanisms to reflect economic realities and close compliance loopholes. Sustain and Expand Technological Reforms

2. Kaduna State should continue to invest in and expand the use of ICT-driven tax systems to improve efficiency, transparency, and accessibility, especially in rural and informal sectors.

3. Enhance Taxpayer Engagement

Intensify public enlightenment, feedback systems, and stakeholder consultations to improve trust and promote voluntary compliance.

4. Monitor and Evaluate Reform Outcomes

Establish mechanisms for continuous monitoring and evaluation of tax reform impacts to ensure sustainability and informed policy adjustments.

References

Abiola, J., & Asiweh, M. (2012). Impact of tax administration on government revenue in a developing economy: A case study of Nigeria. International Journal of Business and Social Science, 3(8), 99–113.

Adebayo, T., & Salisu, K. (2022). Internally generated revenue and subnational governance in Nigeria. African Journal of Public Finance, 9(2), 117–132.

Adekoya, R. A. (2021). Taxpayer education and voluntary compliance in Nigeria: Evidence from stakeholder engagement. Journal of Tax Administration, 7(1), 56–71.

Aisha, H., & Mohammed, M. (2022). Tax education campaigns and their effects on compliance in rural Kaduna. Nigerian Journal of Public Policy, 11(3), 98–110.

Allingham, M. G., & Sandmo, A. (1972). Income tax evasion: A theoretical analysis. Journal of Public Economics, 1(3–4), 323–338. https://doi.org/10.1016/0047-2727(72)90010-2

Abubakar, A., Yusuf, B., & Yakubu, M. (2021). Challenges affecting personal income tax in Gombe State, Nigeria. Nigerian Journal of Tax Research, 9(1), 44–60.

Becker, G. S. (1968). Crime and punishment: An economic approach. Journal of Political Economy, 76(2), 169–217. https://doi.org/10.1086/259394

Bello, U., & Ibrahim, M. (2020). Revenue performance and taxpayer education in Kaduna State. Journal of Development Studies in Africa, 5(2), 145–162.

Bello, U., & Johnson, A. (2024). Legal restructuring and revenue performance in Kaduna State. Journal of Tax Policy and Reform, 13(1), 45–61.

Bird, R. M., & Zolt, E. M. (2008). Tax policy in emerging countries. Environment and Planning C: Government and Policy, 26(1), 73–86. https://doi.org/10.1068/cav6

Danjuma, Y., & Aliyu, S. (2021). Feedback mechanisms and taxpayer satisfaction: Evidence from Kaduna State. Journal of Public Finance and Policy, 14(2), 88–105.

Eke, P., & Omogbai, J. (2022). The impact of tax reforms on federal and state revenue generation in Nigeria. Journal of Fiscal Studies, 7(3), 211–229.

Federal Ministry of Finance. (2015). Revenue mobilization strategy at sub-national levels. Abuja: Federal Government Press.

Fjeldstad, O.-H., Schulz-Herzenberg, C., & Sjursen, I. H. (2020). People's views of taxation in Africa: A review of research on determinants of tax compliance. CMI Working Paper. https://www.cmi.no/publications

Fjeldstad, O.-H., & Moore, M. (2008). Revenue authorities and public authority in sub-Saharan Africa. Journal of Modern African Studies, 46(1), 1–30. https://doi.org/10.1017/S0022278X0700308X

Internal Revenue Service (IRS). (2022). Tax compliance and enforcement strategies. IRS Publications.

Kaduna State Internal Revenue Service (KADIRS). (2022). Annual report on internally generated revenue. Kaduna State Government Press.

Kaduna State Internal Revenue Service (KADIRS). (2023). Annual report on internally generated revenue. Kaduna State Government Press.

Kirchler, E. (2007). The economic psychology of tax behaviour. Cambridge University Press.

Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. Educational and Psychological Measurement, 30(3), 607–610.

Lamidi, A., Olowookere, J., Saad, R., & Ahmi, A. (2023). Factors influencing the adoption of e-filing systems in Nigeria. Journal of E-Government Studies and Best Practices, 2023, 1–18.

Mas'ud, A., Mohammed, R., & Gimbia, A. (2023). Data analytics and audit tools in Nigeria's digital tax system. Nigerian Journal of Taxation and Economic Development, 10(1), 55–72.

Musgrave, R. A., & Musgrave, P. B. (1989). Public finance in theory and practice (5th ed.). McGraw-Hill Education.

Njogu, L. (2018). The impact of taxpayer registration on tax compliance in Kenya. Journal of Public Finance, 12(4), 243–258.

Nwachukwu, A., & Ibekwe, J. (2020). ICT adoption and taxpayer engagement in Nigeria: The challenges of rural outreach. Journal of Fiscal Studies, 11(2), 92–108.

OECD. (2010). Tax policy reform and economic growth. OECD Publishing.

OECD. (2017). Strengthening tax administration through taxpayer registration reforms. OECD Publishing.

OECD. (2019). Tax administration 2019: Comparative information on OECD and other advanced and emerging economies. OECD Publishing. https://www.oecd.org/tax/administration

OECD. (2020). Tax administration: Managing change in tax administration. OECD Publishing.

OECD. (2021). Enhancing tax compliance through digital taxpayer databases. OECD Reports.

Ocheni, S., & Nwankwo, I. (2021). Comparative legal analysis of state tax systems in Nigeria. Nigerian Journal of Tax Law, 9(1), 29–50.

Ogundele, A. A., Aliyu, R., & Yusuf, H. (2020). ICT and tax revenue performance in selected Nigerian states. African Journal of Accounting, Economics, Finance and Banking Research, 12(1), 135–150.

Okoye, C., & Eze, M. (2019). Stakeholder collaboration in enhancing tax compliance. International Journal of Taxation and Finance, 8(4), 203–216. https://journals.unilag.edu.ng/index.php/NGJP/article/view/1366

Okonkwo, E., & Yakubu, S. (2021). Citizen participation in tax governance: The case of Kaduna State. Journal of Governance and Public Policy, 16(1), 78–95.

Olaoye, C. O. (2019). Legal frameworks and revenue mobilization in subnational governments. Nigerian Journal of Public Finance, 6(2), 33–47.

Olaoye, C. O. (2022). Subnational governance and tax dispute mechanisms in Nigeria. Tax Policy Review, 11(1), 59–73.

Oseni, M. (2016). The effects of ICT on tax administration in Nigeria. International Journal of Accounting and Taxation, 4(2), 1–12.

Owusu, K. (2020). Tax audits and investigations as tools for improving revenue performance. Journal of Finance and Taxation, 12(3), 145–158. https://doi.org/10.5897/JFT2020.0411

Torgler, B. (2007). Tax compliance and morale: A theoretical and empirical analysis. Edward Elgar Publishing.

Usman, A., & Garba, H. (2020). Sectoral dialogue and taxpayer engagement in Kaduna. Public Policy and Administration Review, 8(2), 142–158.

World Bank. (2020). The role of ICT in tax system modernization. World Bank Reports.

World Bank. (2021). Stakeholder engagement in tax reform programs: Lessons from emerging economies. World Bank Policy Brief.